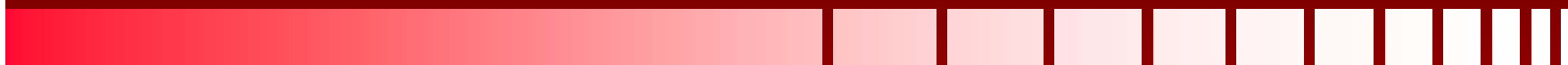


Codex Alimentarius Committee on Pesticide Residues



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Background

- Under the United Nations Food and Agriculture (FAO) and World Health Organizations (WHO)
- Began in 1962 – Codex Alimentarius from Latin Food Code
- Purpose:
 - Develops international standards
 - Protect public health
 - Promote fair trade
 - Provide guidelines for the world's growing food industry



Food and Agriculture
Organization of the
United Nations
for a world without hunger



World Health
Organization



Organization

- Over 170 countries participate in Codex
- Volunteer Nations serve as host countries
- The Codex Alimentarius full Commission:
 - meets annually in late June or early July
 - approves or rejects the recommendations and management decision of individual committees
 - approves new work for individual committees to develop policies



Codex Committees

There are over 30 committees. Some are major committees which meet annually:

- Committee on Pesticide Residues (CCPR)
- Committee on Food Additives
- Committee on Veterinary Drugs in Foods
- Committee on Food Hygiene
- Committee on Methods of Analysis and Sampling
- Committee on Environmental Contaminants in Foods
- Committee on General Principles

Other committees meet less frequently. Each country usually has a coordinator.



Establishing Maximum Residue Limits for Pesticides

- Countries nominate pesticides to be evaluated for consideration in the Codex system after review at national level is completed.
- Countries request manufacturers to propose pesticide for inclusion in the system. A proposal presented by the United States is being considered for joint National and Codex Evaluations.
- Proposed pesticides are prioritized by an ad hoc working group chaired by Australia that meets via electronic media.
- Considers up to 4 new pesticides and review of older pesticides. This is a 5-year working list finalized at the annual meeting.



Establishing Maximum Residue Limits for Pesticides *(continued)*

- Pesticide toxicology data provided by the manufacturer is evaluated by the Joint Meetings on Pesticide Residues (JMPR), an expert group of independent scientists. The group meets once a year.
- JMPR determines “acceptable daily intake” (ADI) for the pesticide candidate (U.S. equivalent is reference dose). The ADI is determined by long term exposure studies based on selected toxicology endpoints.



Establishing Maximum Residue Limits for Pesticides *(continued)*



- An acute reference dose is established if there is a potential acute toxic endpoint for the pesticide, based on a single or daily commodity serving.
- Manufacturers submit to JMPR residue field trials to determine the residue levels based on Good Agricultural Practices (GAPs). The number of trials is based on climate and soil conditions.



Establishing Maximum Residue Limits for Pesticides *(continued)*

- Exposure is defined as the projected maximum residue times the expected consumption of the commodity by an individual.
- Consumption is based on 13 international diets determined by the Global Environmental Management System (GEMS) developed by WHO. (Before 2006 only 5 representative diets were considered.)
- The Maximum Residue Limit is recommended by JMPR taking into account the SUM of exposures for the pesticide resulting from uses in different crops. The sum of exposures (residues x consumption) is supposed to be less than the ADI.



Establishing Maximum Residue Limits for Pesticides *(continued)*

- JMPR also reviews existing pesticides on a 15-year cycle. Toxicology and Residue Chemistry can be done in different years.
- Periodic reviews can result in a modification of the MRL or in its deletion if the use is no longer supported by the manufacturer.
- 2008 examples—*fenvalerate*, *metalaxyl*.



Establishing Maximum Residue Limits for Pesticides *(continued)*

- CCPR considers JMPR recommendations for a proposed MRL and serves as a management authority.
- The chair of CCPR (China) considers comments by governments and tries to reach consensus.
- Countries objecting to advancing an MRL in the step process must submit an intervention form based on reasonable scientific evidence to support their objection. This process was established in 2006.



Establishing Maximum Residue Limits for Pesticides *(continued)*



- MRLs can also be proposed to cover crop groups such as pome fruit, citrus, leafy vegetables.
- MRLs are assigned whole single digit numbers, e.g. 0.01; 0.2; 3, 5, 7, 15, 40.
- CCPR cross references pesticides and common metabolites also in the Codex system.
- Codex does not consider percent crop treated in considering an MRL (The US does).



The 8-Step Process

1. Proposal to set an MRL for a pesticide - commodity use or additional commodity uses entered into the system
2. First evaluation of toxicology and residue chemistry by JMPR to determine MRL
3. MRL submitted by CCPR to member countries and other interested parties for first round of comments
4. Discussion of MRLs at CCPR annual plenary
5. MRL submitted by CCPR to the Commission to be reviewed for consistency with Codex general standards



The 8-Step Process

6. MRL submitted to Governments for second round of comments
7. MRL moves to step 8 or the proposed MRL is held at step 7:
 - Due to uncertainties regarding ADI (7A)
 - Is referred back to JMPR based on new toxicology or residue chemistry information (7B)
 - Because of issues raised by Government(s) (7C)
8. CCPR recommendation to the Commission for adoption.
If there were no Government objections at step 4 – the MRL goes to the Commission for adoption as a step 5/8. When the Commission approves, the term CXL applied. During a periodic pesticide review, if the manufacturer does not support maintaining the CXL by submitting revised information, the CXL is recommended for deletion using the same process.



CCPR Organization

- The last CCPR session was held in China in April 2008--58 countries attended
- The European Commission speaks for all 25 EU members regarding policy issues
- Delegates from individual EU countries also attend



CCPR Organization *(continued)*

- Other participants include:
 - International Atomic Energy Agency
 - Crop Life International
 - International Union for Pure and Applied Chemistry
 - Association of Official Analytical Chemists International



CCPR Organization *(continued)*

Ad hoc Committees:

- Priorities – sets the calendar for reviewing new and existing pesticides in the Codex system
- Methods of Analysis and Sampling
Chaired by IAEA (previously Netherlands)



CCPR Organization *(continued)*

- Major projects over the past 10 years:
 - Complete revision of sampling guidelines
 - Restructured the recommended methods of analysis for commodities
 - New protocols for validating test methods
 - Guidelines for estimating “uncertainty” in testing consignments for compliance with CXL




U.S. Delegation

- Comprised of Government and non-Government members (approximately 15)
- EPA provides the U.S. Delegate
 - Lois Rossi, Director, Registration Division, OPP
- USDA provides the Alternate Delegate
 - Robert Epstein, Deputy Administrator, S&T/AMS
- FDA and interested industry groups (e.g., Crop Life and IR-4) are also represented
- Only the U.S. Delegate or the designee speaks on behalf of U.S. during plenary
- The U.S. Delegation meets periodically with a rolling agenda to prepare for the annual meeting



CCPR MRL Activities

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- There are over 3,000 pesticide CXLs. For negligible residues, the CXL is set at the Level of Determination (Quantification of the Method) and marked with an asterisk.
 - There are 223 pesticides in the Codex system (39 delisted)
 - For withdrawn pesticides where there are persistent residues in the environment – CCPR maintains EMRLs, e.g., DDT, heptachlor (E= Extraneous)
 - In a majority of cases where a Codex CXL as well as a US tolerance exists for the commodity/pesticide, the CXL is a lower value.

CCPR MRL Activities *(continued)*

- In 2008 – 485 Actions
 - 261 pesticide/commodity MRLs, based on 18 pesticides were advanced to step 8 for Commission adoption
 - 17 pesticide/commodity MRLs for 5 pesticides were advanced to step 5 for Commission action
 - 92 pesticide/commodity CXLs involving 13 pesticides were recommended for deletion
 - 30 pesticide/commodity MRLs were withdrawn in the approval process
 - 85 pesticide/commodity MRLs for 14 pesticides were held at steps 6/7 or step 4



Current CCPR Projects

- *Revisions of the Codex Classification of Food and Animal Feeds*
 - To make the Codex system more comprehensive and inclusive of crops produced by developing countries. (Working group, co-chaired by the Netherlands and the U.S. meets using electronic media).
 - Revisions for bulb vegetables and fruiting vegetables were introduced in 2007. Two new crop groups - edible fungi and berries/small fruits accepted for revision in 2008. All four groups to be discussed at the 2009 CCPR session for advancement in the step process.



Current CCPR Projects *(continued)*

- *Processed Foods and Feeds*

JMPR endorsed the current CCPR practice of establishing processed products MRLs only if the residue concentrates. Otherwise, the raw agricultural CXL is applied to the processed product. For 2009, the EU and U.S. will present a CCPR guideline paper on processing factors.



Current CCPR Projects *(continued)*

- *Analytical Related Issues*

Estimation of Uncertainty in test results applied to testing commodities in commerce. The U.S. does not apply such factors – in enforcement actions all values must exceed the U.S. tolerance. CCPR decided that measurement of uncertainty is a national issue and will not be incorporated into its guidelines because of potential trade issues.



Current CCPR Projects *(continued)*

- *Matters for the Global Minor Use Summit*
CCPR endorsement on continuing efforts to support minor uses with special emphasis on minor crops from developing countries.





Details of the 40th CCPR Session is found on:

ftp://ftp.fao.org/codex/alimentarius/a131_24e.pdf

